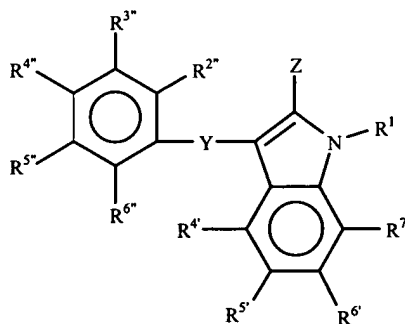


Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing Claims:

Claim 19 (currently amended): A method for the treatment ~~or prophylaxis~~ of an HIV-infection in a host comprising administering to said host an effective anti-HIV treatment amount of a compound of formula (I):



or a pharmaceutically acceptable salt thereof, wherein

R¹ is hydrogen; acyl; -C(=O)H; -C(=W)H; -C(=O)R²; -C(=W)R²; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)OR²; -C(=O)SH; -C(=W)SH; -C(=O)SR²; -C(=W)SR²; -C(=O)NH₂; -C(=W)NH₂; -C(=O)NHR²; -C(=W)NHR²; -C(=O)NR²R³; -C(=W)NR²R³; -C(=W)NH-(CH₂)_p-(amino acid); or -(CH₂)_p-(amino acid);

R^{4'}, R^{5'}, R^{6'}, R^{7'}, R^{2''}, R^{3''}, R^{4''}, R^{5''} and R^{6''} are each independently H; halo; -NO₂; -CN; -OH; -OR²; -SH; -SR²; -NH₂; -NHR²; -NR²R³; -NHSO₂-C₁₋₃alkyl; -NR²SO₂-C₁₋₃alkyl; -NHCO-C₁₋₃alkyl; -NR²CO-C₁₋₃alkyl; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH₃; CF₃; vinyl bromide; -CR²R²-S(O)_n-R³; -CR²R²NH₂; -CR²R²NHR²; -CR²R²NR²R³; -CR²R²-C(=O)R²; alkacyl; optionally substituted or unsubstituted acyl; -C(=O)H; -C(=W)H; -C(=O)R²; -C(=W)R²; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)OR²; -C(=O)-SH; -C(=W)SH; -C(=O)SR²; -C(=W)SR²; -C(=O)NH₂; -C(=W)NH₂; -C(=O)NHR²; -C(=W)NHR²; -C(=O)NR²R³; -C(=W)-NR²R³; -C(=W)NH(CH₂)_p-(amino acid); an amino acid; or -(CH₂)_p(amino acid);

wherein if R^{5'} is ~~hydrogen~~, F, Cl, Br, -NO₂, -CN, -OR², -NR²R², -NHSO₂-C₁₋₃alkyl; or -NHCO-C₁₋₃alkyl, then at least one of R^{4'}, R^{6'} and R^{7'} is not hydrogen; or alternatively, wherein at least two of R^{4'}, R^{5'}, R^{6'}, R^{7'} are not hydrogen;

Z is optionally substituted or unsubstituted acyl, $-C(=O)NH_2$; $-C(=W)-NH_2$; $-C(=O)NHR^2$; $-C(=W)NHR^2$; $-C(=O)NR^2R^3$; $-C(=W)NR^2R^3$; $-C(=W)NH(CH_2)_p-(\text{amino acid})$; an amino acid; $-(CH_2)_p-(\text{amino acid})$; $-C(=O)R^3$; $-C(=O)H$; $-C(=W)H$; $-C(=O)R^2$; $-C(=W)R^2$; $-C(=O)OR^3$; $-C(=O)OH$; $-C(=W)OH$; $-C(=O)OR^2$; $-C(=W)-OR^2$; $-C(=O)-SH$; $-C(=W)SH$; $-C(=O)SR^2$; $-C(=W)SR^2$; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH_3 ; CF_3 ; vinyl bromide; $-CR^2R^2-S(O)_n-R^3$; $-CR^2R^2NH_2$; $-CR^2R^2NHR^2$; $-CR^2R^2NR^2R^3$; $-CR^2R^2-C(=O)R^2$; $-CN$; or halo;

Y is O; S; $\underline{S(O)}$ or $\underline{S(O)}_2$ $\underline{S(O)}_n$;

each W is independently O; S; $\underline{NH-NH_2}$; $\underline{NR^2-NHR^2}$; $-NR^2R^2$; $-N-CN$; $-N-NH_2$; $-N-NHR^2$; $-N-NR^2R^3$; $-N-OH$; or $-N-OR^2$;

each R^2 is independently hydrogen; an optionally substituted or unsubstituted branched or unbranched lower alkyl, alkenyl or alkynyl; CH_3 ; CF_3 ; or vinyl bromide;

each R^3 is independently hydrogen; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH_3 ; CF_3 ; vinyl bromide; $-CR^2R^2-S(O)_n-R^2$; $-CR^2R^2NH_2$; $-CR^2R^2NHR^2$; $-CR^2R^2NR^2R^2$; $-CR^2R^2-C(=O)R^2$; optionally substituted or unsubstituted aryl; optionally substituted or unsubstituted heterocycle; optionally substituted or unsubstituted alkylaryl; optionally substituted or unsubstituted ~~alkylheterocycle~~ alkylheterocycle; optionally substituted or unsubstituted aralkyl; or optionally substituted or unsubstituted heterocycle-alkyl;

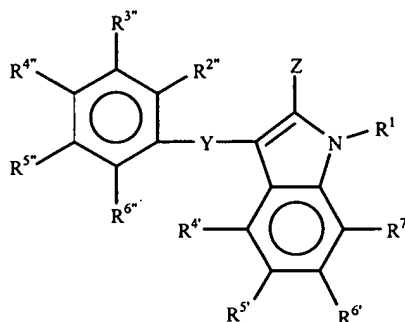
each n is independently 0, 1 or 2;

each p is independently 0, 1, 2, 3, 4 or 5; and

wherein the optionally substituted branched or unbranched alkyl, alkenyl, alkynyl, lower alkyl, lower alkenyl; lower alkynyl; acyl; aryl; heterocycle; alkaryl; alkheterocycle; arylalkyl; or alkylheterocycle optionally is substituted with one or more of halogen; $-OH$; $-OR^2$; $-SH$; $-SR^2$; oxime; hydrazine; $-C(=O)H$; $-C(=W)H$; $-C(=O)R^2$; $-C(=W)R^2$; $-C(=O)OH$; $-C(=W)OH$; $-C(=O)OR^2$; $-C(=W)OR^2$; $-C(=O)SH$; $-C(=W)SH$; $-C(=O)SR^2$; $-C(=W)SR^2$; $-C(=O)NH_2$; $-C(=W)NH_2$; $-C(=O)-NHR^2$; $-C(=W)NHR^2$; $-C(=O)NR^2R^3$; $-C(=W)-NR^2R^3$; $-NH_2$; $-NHR^2$; $-NR^2R^3$; $-NHSO_2-C_{1-3}alkyl$; $-NR^2SO_2-C_{1-3}alkyl$; $-NHCO-C_{1-3}alkyl$; $-NR^2CO-C_{1-3}alkyl$; $-S(O)_n-R^3$; C_{1-3} alkoxy; C_{1-3} thioether; or an amino acid residue;

optionally in a pharmaceutically acceptable carrier or diluent.

Claim 20 (currently amended): A method for the treatment ~~or prophylaxis~~ of an HIV-infection in a host comprising administering to said host an effective anti-HIV treatment amount of a compound of formula (I):



or a pharmaceutically acceptable salt thereof, wherein

R^1 is hydrogen; acyl; $-C(=O)H$; $-C(=W)H$; $-C(=O)R^2$; $-C(=W)R^2$; $-C(=O)OH$; $-C(=W)OH$; $-C(=O)OR^2$; $-C(=W)OR^2$; $-C(=O)SH$; $-C(=W)SH$; $-C(=O)SR^2$; $-C(=W)SR^2$; $-C(=O)NH_2$; $-C(=W)NH_2$; $-C(=O)NHR^2$; $-C(=W)NHR^2$; $-C(=O)NR^2R^3$; $-C(=W)NR^2R^3$; $-C(=W)NH-(CH_2)_p$ -(amino acid); or $-(CH_2)_p$ -(amino acid);

R^4 , R^5 , R^6 , R^7 , R^2 , R^3 , R^4 , R^5 and R^6 are each independently H; halo; $-NO_2$; $-CN$; $-OH$; $-OR^2$; $-SH$; $-SR^2$; $-NH_2$; $-NHR^2$; $-NR^2R^3$; $-NHSO_2-C_{1-3}alkyl$; $-NR^2SO_2-C_{1-3}alkyl$; $-NHCO-C_{1-3}alkyl$; $-NR^2CO-C_{1-3}alkyl$; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH_3 ; CF_3 ; vinyl bromide; $-CR^2R^2-S(O)_n-R^3$; $-CR^2R^2NH_2$; $-CR^2R^2NHR^2$; $-CR^2R^2NR^2R^3$; $-CR^2R^2-C(=O)R^2$; alkacyl; optionally substituted or unsubstituted acyl; $-C(=O)H$; $-C(=W)H$; $-C(=O)R^2$; $-C(=W)R^2$; $-C(=O)OH$; $-C(=W)OH$; $-C(=O)OR^2$; $-C(=W)OR^2$; $-C(=O)-SH$; $-C(=W)SH$; $-C(=O)SR^2$; $-C(=W)SR^2$; $-C(=O)NH_2$; $-C(=W)NH_2$; $-C(=O)NHR^2$; $-C(=W)NHR^2$; $-C(=O)NR^2R^3$; $-C(=W)-NR^2R^3$; $-C(=W)NH(CH_2)_p$ -(amino acid); an amino acid; or $-(CH_2)_p$ -(amino acid);

wherein if R^5 is ~~hydrogen~~, F, Cl, Br, $-NO_2$, $-CN$, $-OR^2$, $-NR^2R^2$, $-NHSO_2-C_{1-3}alkyl$; or $-NHCO-C_{1-3}alkyl$, then at least one of R^4 , R^6 and R^7 is not hydrogen; or alternatively, wherein at least two of R^4 , R^5 , R^6 , R^7 are not hydrogen;

Z is optionally substituted or unsubstituted acyl, $-C(=O)NH_2$; $-C(=W)-NH_2$; $-C(=O)NHR^2$; $-C(=W)NHR^2$; $-C(=O)NR^2R^3$; $-C(=W)NR^2R^3$; $-C(=W)NH(CH_2)_p$ -(amino acid); an amino acid; $-(CH_2)_p$ -(amino acid); $-C(=O)R^3$; $-C(=O)H$; $-C(=W)H$; $-C(=O)R^2$; $-C(=W)R^2$; $-C(=O)OR^3$; $-C(=O)OH$; $-C(=W)OH$; $-C(=O)OR^2$; $-C(=W)-OR^2$; $-C(=O)-SH$; $-C(=W)SH$; $-C(=O)SR^2$; $-C(=W)SR^2$; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or

alkynyl; CH₃; CF₃; vinyl bromide; -CR²R²-S(O)_n-R³; -CR²R²NH₂; -CR²R²NHR²;
-CR²R²NR²R³; -CR²R²-C(=O)R²; -CN; or halo;

Y is O; S; S(O) or S(O)₂ S(O)_n;

each W is independently O; S; NH-NH₂; NR²-NHR²; -NR²R²; -N-CN; -N-NH₂; -N-NHR²; -N-NR²R³; -N-OH; or -N-OR²;

each R² is independently hydrogen; an optionally substituted or unsubstituted branched or unbranched lower alkyl, alkenyl or alkynyl; CH₃; CF₃; or vinyl bromide;

each R³ is independently hydrogen; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH₃; CF₃; vinyl bromide; -CR²R²-S(O)_n-R²; -CR²R²NH₂; -CR²R²NHR²; -CR²R²NR²R²; -CR²R²-C(=O)R²; optionally substituted or unsubstituted aryl; optionally substituted or unsubstituted heterocycle; optionally substituted or unsubstituted alkylaryl; optionally substituted or unsubstituted ~~alkylheterocycle~~ alkylheterocycle; optionally substituted or unsubstituted aralkyl; or optionally substituted or unsubstituted heterocycle-alkyl;

each n is independently 0, 1 or 2;

each p is independently 0, 1, 2, 3, 4 or 5; and

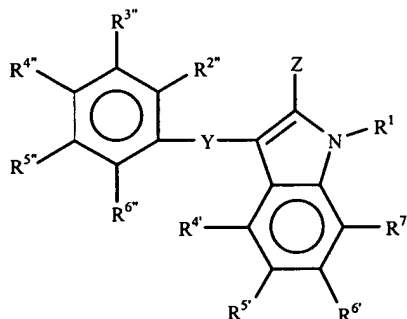
wherein the optionally substituted branched or unbranched alkyl, alkenyl, alkynyl, lower alkyl, lower alkenyl; lower alkynyl; acyl; aryl; heterocycle; alkaryl; ~~alkheterocycle~~ alkylheterocycle; arylalkyl; or alkylheterocycle optionally is substituted with one or more of halogen; -OH; -OR²; -SH; -SR²; oxime; hydrazine; -C(=O)H; -C(=W)H; -C(=O)R²; -C(=W)R²; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)OR²; -C(=O)SH; -C(=W)SH; -C(=O)SR²; -C(=W)SR²; -C(=O)NH₂; -C(=W)NH₂; -C(=O)-NHR²; -C(=W)-NHR²; -C(=O)NR²R³; -C(=W)-NR²R³; -NH₂; -NHR²; -NR²R³; -NHCO-C₁₋₃alkyl; -NR²SO₂-C₁₋₃alkyl; -NHCO-C₁₋₃alkyl; -NR²CO-C₁₋₃alkyl; -S(O)_n-R³; C₁₋₃ alkoxy; C₁₋₃thioether; or an amino acid residue;

in combination and/or alternation with one or more other anti-HIV agent, optionally in a pharmaceutically acceptable carrier or diluent.

Claim 21 (original): The method of claim 20, wherein the other anti-HIV agent is a reverse transcriptase inhibitor.

Claim 22 (original): The method of claim 21, wherein the reverse transcriptase inhibitor induces a mutation lysine 103 → asparagine and/or tyrosine 181 → cysteine in HIV reverse transcriptase.

Claim 23 (currently amended): A method for the treatment ~~or prophylaxis~~ of an HIV-infection in a host, wherein the HIV has a mutation at lysine 103 → asparagine and/or tyrosine 181 → cysteine in HIV reverse transcriptase, comprising administering to said host an effective anti-HIV treatment amount of a compound of formula (I):



or a pharmaceutically acceptable salt thereof, wherein

R^1 is hydrogen; acyl; $-C(=O)H$; $-C(=W)H$; $-C(=O)R^2$; $-C(=W)R^2$; $-C(=O)OH$; $-C(=W)OH$; $-C(=O)OR^2$; $-C(=W)OR^2$; $-C(=O)SH$; $-C(=W)SH$; $-C(=O)SR^2$; $-C(=W)SR^2$; $-C(=O)NH_2$; $-C(=W)NH_2$; $-C(=O)NHR^2$; $-C(=W)NHR^2$; $-C(=O)NR^2R^3$; $-C(=W)NR^2R^3$; $-C(=W)NH-(CH_2)_p$ -(amino acid); or $-(CH_2)_p$ -(amino acid);

$R^{4'}$, $R^{5'}$, $R^{6'}$, $R^{7'}$, $R^{2''}$, $R^{3''}$, $R^{4''}$, $R^{5''}$ and $R^{6''}$ are each independently H; halo; $-NO_2$; $-CN$; $-OH$; $-OR^2$; $-SH$; $-SR^2$; $-NH_2$; $-NHR^2$; $-NR^2R^3$; $-NHSO_2-C_{1-3}alkyl$; $-NR^2SO_2-C_{1-3}alkyl$; $-NHCO-C_{1-3}alkyl$; $-NR^2CO-C_{1-3}alkyl$; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH_3 ; CF_3 ; vinyl bromide; $-CR^2R^2-S(O)_n-R^3$; $-CR^2R^2NH_2$; $-CR^2R^2NHR^2$; $-CR^2R^2NR^2R^3$; $-CR^2R^2-C(=O)R^2$; alkacyl; optionally substituted or unsubstituted acyl; $-C(=O)H$; $-C(=W)H$; $-C(=O)R^2$; $-C(=W)R^2$; $-C(=O)OH$; $-C(=W)OH$; $-C(=O)OR^2$; $-C(=W)OR^2$; $-C(=O)-SH$; $-C(=W)SH$; $-C(=O)SR^2$; $-C(=W)SR^2$; $-C(=O)NH_2$; $-C(=W)NH_2$; $-C(=O)NHR^2$; $-C(=W)NHR^2$; $-C(=O)NR^2R^3$; $-C(=W)-NR^2R^3$; $-C(=W)NH(CH_2)_p$ -(amino acid); an amino acid; or $-(CH_2)_p$ -(amino acid);

wherein if $R^{5'}$ is ~~hydrogen~~, F, Cl, Br, $-NO_2$, $-CN$, $-OR^2$, $-NR^2R^3$, $-NHSO_2-C_{1-3}alkyl$; or $-NHCO-C_{1-3}alkyl$, then at least one of $R^{4'}$, $R^{6'}$ and $R^{7'}$ is not hydrogen; or alternatively, wherein at least two of $R^{4'}$, $R^{5'}$, $R^{6'}$, $R^{7'}$ are not hydrogen;

Z is optionally substituted or unsubstituted acyl, $-C(=O)NH_2$; $-C(=W)-NH_2$; $-C(=O)NHR^2$; $-C(=W)NHR^2$; $-C(=O)NR^2R^3$; $-C(=W)NR^2R^3$; $-C(=W)NH(CH_2)_p$ -(amino acid); an amino acid; $-(CH_2)_p$ -(amino acid); $-C(=O)R^3$; $-C(=O)H$; $-C(=W)H$; $-C(=O)R^2$; $-C(=W)R^2$; $-C(=O)OR^3$; $-C(=O)OH$; $-C(=W)OH$; $-C(=O)OR^2$; $-C(=W)-OR^2$; $-C(=O)-SH$; $-C(=W)SH$; $-C(=O)SR^2$; $-C(=W)SR^2$;

optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH₃; CF₃; vinyl bromide; -CR²R²-S(O)_n-R³; -CR²R²NH₂; -CR²R²NHR²; -CR²R²NR²R³; -CR²R²-C(=O)R²; -CN; or halo;

Y is O; S; S(O) or S(O)₂ S(O)_n;

each W is independently O; S; -NH₂; -NHR²; -NR²R²; -N-CN; -N-NH₂; -N-NHR²; -N-NR²R³; -N-OH; or -N-OR²;

each R² is independently hydrogen; an optionally substituted or unsubstituted branched or unbranched lower alkyl, alkenyl or alkynyl; CH₃; CF₃; or vinyl bromide;

each R³ is independently hydrogen; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH₃; CF₃; vinyl bromide; -CR²R²-S(O)_n-R²; -CR²R²NH₂; -CR²R²NHR²; -CR²R²NR²R²; -CR²R²-C(=O)R²; optionally substituted or unsubstituted aryl; optionally substituted or unsubstituted heterocycle; optionally substituted or unsubstituted alkylaryl; optionally substituted or unsubstituted alkylheterocycle; optionally substituted or unsubstituted aralkyl; or optionally substituted or unsubstituted heterocycle-alkyl;

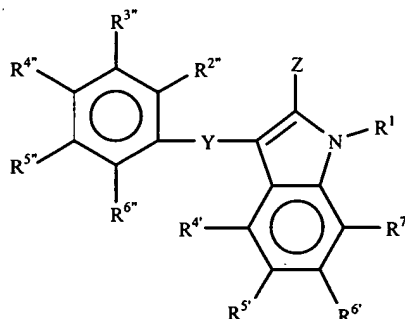
each n is independently 0, 1 or 2;

each p is independently 0, 1, 2, 3, 4 or 5; and

wherein the optionally substituted branched or unbranched alkyl, alkenyl, alkynyl, lower alkyl, lower alkenyl; lower alkynyl; acyl; aryl; heterocycle; alkaryl; alkheterocycle; arylalkyl; or alkylheterocycle optionally is substituted with one or more of halogen; -OH; -OR²; -SH; -SR²; oxime; hydrazine; -C(=O)H; -C(=W)H; -C(=O)R²; -C(=W)R²; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)OR²; -C(=O)SH; -C(=W)SH; -C(=O)SR²; -C(=W)SR²; -C(=O)NH₂; -C(=W)NH₂; -C(=O)-NHR²; -C(=W)NHR²; -C(=O)NR²R³; -C(=W)-NR²R³; -NH₂; -NHR²; -NR²R³; -NHCO-C₁₋₃alkyl; -NR²SO₂-C₁₋₃alkyl; -NHCO-C₁₋₃alkyl; -NR²CO-C₁₋₃alkyl; -S(O)_n-R³; C₁₋₃ alkoxy; C₁₋₃thioether; or an amino acid residue;

optionally in a pharmaceutically acceptable carrier or diluent.

Claim 24 (currently amended): A method for the treatment or ~~prophylaxis~~ of an HIV-infection in a host, wherein the HIV is resistant to one or more reverse transcriptase inhibitor(s), comprising administering to said host an effective anti-HIV treatment amount of a compound of formula (I):



or a pharmaceutically acceptable salt thereof, wherein

R¹ is hydrogen; acyl; -C(=O)H; -C(=W)H; -C(=O)R²; -C(=W)R²; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)OR²; -C(=O)SH; -C(=W)SH; -C(=O)SR²; -C(=W)SR²; -C(=O)NH₂; -C(=W)NH₂; -C(=O)NHR²; -C(=W)NHR²; -C(=O)NR²R³; -C(=W)NR²R³; -C(=W)NH-(CH₂)_p-(amino acid); or -(CH₂)_p-(amino acid);

R^{4'}, R^{5'}, R^{6'}, R^{7'}, R^{2'}, R^{3'}, R^{4''}, R^{5''} and R^{6''} are each independently H; halo; -NO₂; -CN; -OH; -OR²; -SH; -SR²; -NH₂; -NHR²; -NR²R³; -NHSO₂-C₁₋₃alkyl; -NR²SO₂-C₁₋₃alkyl; -NHCO-C₁₋₃alkyl; -NR²CO-C₁₋₃alkyl; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH₃; CF₃; vinyl bromide; -CR²R²-S(O)_n-R³; -CR²R²NH₂; -CR²R²NHR²; -CR²R²NR²R³; -CR²R²-C(=O)R²; alkacyl; optionally substituted or unsubstituted acyl; -C(=O)H; -C(=W)H; -C(=O)R²; -C(=W)R²; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)OR²; -C(=O)-SH; -C(=W)SH; -C(=O)SR²; -C(=W)SR²; -C(=O)NH₂; -C(=W)NH₂; -C(=O)NHR²; -C(=W)NHR²; -C(=O)NR²R³; -C(=W)NR²R³; -C(=W)NH(CH₂)_p-(amino acid); an amino acid; or -(CH₂)_p-(amino acid);

wherein if R^{5'} is ~~hydrogen~~, F, Cl, Br, -NO₂, -CN, -OR², -NR²R³, -NHSO₂-C₁₋₃alkyl; or -NHCO-C₁₋₃alkyl, then at least one of R^{4'}, R^{6'} and R^{7'} is not hydrogen; or alternatively, wherein at least two of R^{4'}, R^{5'}, R^{6'}, R^{7'} are not hydrogen;

Z is optionally substituted or unsubstituted acyl, -C(=O)NH₂; -C(=W)-NH₂; -C(=O)NHR²; -C(=W)NHR²; -C(=O)NR²R³; -C(=W)NR²R³; -C(=W)NH(CH₂)_p-(amino acid); an amino acid; -(CH₂)_p-(amino acid); -C(=O)R³; -C(=O)H; -C(=W)H; -C(=O)R²; -C(=W)R²; -C(=O)OR³; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)-OR²; -C(=O)-SH; -C(=W)SH; -C(=O)SR²; -C(=W)SR²;

optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH₃; CF₃; vinyl bromide; -CR²R²-S(O)_n-R³; -CR²R²NH₂; -CR²R²NHR²; -CR²R²NR²R³; -CR²R²-C(=O)R²; -CN; or halo;

Y is O; S; S(O) or S(O)₂ S(O)_n;

each W is independently O; S; NH-NH₂; NR²-NHR²; -NR²R²; -N-CN; -N-NH₂; -N-NHR²; -N-NR²R³; -N-OH; or -N-OR²;

each R² is independently hydrogen; an optionally substituted or unsubstituted branched or unbranched lower alkyl, alkenyl or alkynyl; CH₃; CF₃; or vinyl bromide;

each R³ is independently hydrogen; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH₃; CF₃; vinyl bromide; -CR²R²-S(O)_n-R²; -CR²R²NH₂; -CR²R²NHR²; -CR²R²NR²R²; -CR²R²-C(=O)R²; optionally substituted or unsubstituted aryl; optionally substituted or unsubstituted heterocycle; optionally substituted or unsubstituted alkylaryl; optionally substituted or unsubstituted alkylheterocycle; optionally substituted or unsubstituted aralkyl; or optionally substituted or unsubstituted heterocycle-alkyl;

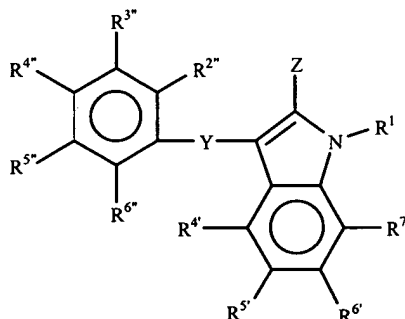
each n is independently 0, 1 or 2;

each p is independently 0, 1, 2, 3, 4 or 5; and

wherein the optionally substituted branched or unbranched alkyl, alkenyl, alkynyl, lower alkyl, lower alkenyl; lower alkynyl; acyl; aryl; heterocycle; alkaryl; ~~alkheterocycle~~ alkylheterocycle; arylalkyl; or alkylheterocycle optionally is substituted with one or more of halogen; -OH; -OR²; -SH; -SR²; oxime; hydrazine; -C(=O)H; -C(=W)H; -C(=O)R²; -C(=W)R²; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)OR²; -C(=O)SH; -C(=W)SH; -C(=O)SR²; -C(=W)SR²; -C(=O)NH₂; -C(=W)NH₂; -C(=O)-NHR²; -C(=W)NHR²; -C(=O)NR²R³; -C(=W)-NR²R³; -NH₂; -NHR²; -NR²R³; -NHCO-C₁₋₃alkyl; -NR²SO₂-C₁₋₃alkyl; -NHCO-C₁₋₃alkyl; -NR²CO-C₁₋₃alkyl; -S(O)_n-R³; C₁₋₃ alkoxy; C₁₋₃thioether; or an amino acid residue;

in combination and/or alternation with one or more other anti-HIV agent, optionally in a pharmaceutically acceptable carrier or diluent.

Claim 27 (currently amended): A method for the treatment ~~or prophylaxis~~ of an HIV-infection in a host, wherein the HIV is resistant to one or more reverse transcriptase inhibitor(s), comprising administering to said host an effective anti-HIV treatment amount of a compound of formula (I):



or a pharmaceutically acceptable salt thereof, wherein

R^1 is hydrogen; acyl; $-C(=O)H$; $-C(=W)H$; $-C(=O)R^2$; $-C(=W)R^2$; $-C(=O)OH$; $-C(=W)OH$; $-C(=O)OR^2$; $-C(=W)OR^2$; $-C(=O)SH$; $-C(=W)SH$; $-C(=O)SR^2$; $-C(=W)SR^2$; $-C(=O)NH_2$; $-C(=W)NH_2$; $-C(=O)NHR^2$; $-C(=W)NHR^2$; $-C(=O)NR^2R^3$; $-C(=W)NR^2R^3$; $-C(=W)NH(CH_2)_p$ -(amino acid); or $-(CH_2)_p$ -(amino acid);

R^4 , R^5 , R^6 , R^7 , R^8 , R^9 , R^{10} , R^{11} and R^{12} are each independently H; halo; $-NO_2$; $-CN$; $-OH$; $-OR^2$; $-SH$; $-SR^2$; $-NH_2$; $-NHR^2$; $-NR^2R^3$; $-NHSO_2-C_{1-3}alkyl$; $-NR^2SO_2-C_{1-3}alkyl$; $-NHCO-C_{1-3}alkyl$; $-NR^2CO-C_{1-3}alkyl$; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH_3 ; CF_3 ; vinyl bromide; $-CR^2R^2-S(O)_n-R^3$; $-CR^2R^2NH_2$; $-CR^2R^2NHR^2$; $-CR^2R^2NR^2R^3$; $-CR^2R^2-C(=O)R^2$; alkacyl; optionally substituted or unsubstituted acyl; $-C(=O)H$; $-C(=W)H$; $-C(=O)R^2$; $-C(=W)R^2$; $-C(=O)OH$; $-C(=W)OH$; $-C(=O)OR^2$; $-C(=W)OR^2$; $-C(=O)-SH$; $-C(=W)SH$; $-C(=O)SR^2$; $-C(=W)SR^2$; $-C(=O)NH_2$; $-C(=W)NH_2$; $-C(=O)NHR^2$; $-C(=W)NHR^2$; $-C(=O)NR^2R^3$; $-C(=W)NR^2R^3$; $-C(=W)NH(CH_2)_p$ -(amino acid); an amino acid; or $-(CH_2)_p$ -(amino acid);

wherein if R^5 is hydrogen, F, Cl, Br, $-NO_2$, $-CN$, $-OR^2$, $-NR^2R^2$, $-NHSO_2-C_{1-3}alkyl$; or $-NHCO-C_{1-3}alkyl$, then at least one of R^4 , R^6 and R^7 is not hydrogen; or alternatively, wherein at least two of R^4 , R^5 , R^6 , R^7 are not hydrogen;

Z is optionally substituted or unsubstituted acyl, $-C(=O)NH_2$; $-C(=W)-NH_2$; $-C(=O)NHR^2$; $-C(=W)NHR^2$; $-C(=O)NR^2R^3$; $-C(=W)NR^2R^3$; $-C(=W)NH(CH_2)_p$ -(amino acid); an amino acid; $-(CH_2)_p$ -(amino acid); $-C(=O)R^3$; $-C(=O)H$; $-C(=W)H$; $-C(=O)R^2$; $-C(=W)R^2$; $-C(=O)OR^3$; $-C(=O)OH$; $-C(=W)OH$; $-C(=O)OR^2$; $-C(=W)-OR^2$; $-C(=O)-SH$; $-C(=W)SH$; $-C(=O)SR^2$; $-C(=W)SR^2$;

optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH₃; CF₃; vinyl bromide; -CR²R²-S(O)_n-R³; -CR²R²NH₂; -CR²R²NHR²; -CR²R²NR²R³; -CR²R²-C(=O)R²; -CN; or halo;

Y is O; S; S(O) or S(O)₂ S(O)_n;

each W is independently O; S; NH-NH₂; NR²-NHR²; -NR²R²; -N-CN; -N-NH₂; -N-NHR²; -N-NR²R³; -N-OH; or -N-OR²;

each R² is independently hydrogen; an optionally substituted or unsubstituted branched or unbranched lower alkyl, alkenyl or alkynyl; CH₃; CF₃; or vinyl bromide;

each R³ is independently hydrogen; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH₃; CF₃; vinyl bromide; -CR²R²-S(O)_n-R²; -CR²R²NH₂; -CR²R²NHR²; -CR²R²NR²R²; -CR²R²-C(=O)R²; optionally substituted or unsubstituted aryl; optionally substituted or unsubstituted heterocycle; optionally substituted or unsubstituted alkylaryl; optionally substituted or unsubstituted alkylheterocycle; optionally substituted or unsubstituted aralkyl; or optionally substituted or unsubstituted heterocycle-alkyl;

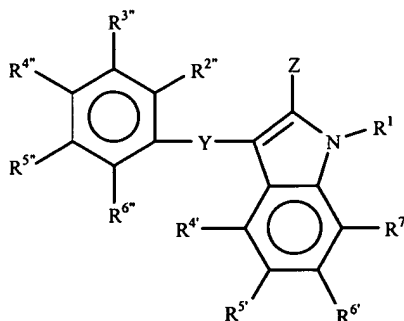
each n is independently 0, 1 or 2;

each p is independently 0, 1, 2, 3, 4 or 5; and

wherein the optionally substituted branched or unbranched alkyl, alkenyl, alkynyl, lower alkyl, lower alkenyl; lower alkynyl; acyl; aryl; heterocycle; alkaryl; ~~alkheterocycle~~ alkylheterocycle; arylalkyl; or alkylheterocycle optionally is substituted with one or more of halogen; -OH; -OR²; -SH; -SR²; oxime; hydrazine; -C(=O)H; -C(=W)H; -C(=O)R²; -C(=W)R²; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)OR²; -C(=O)SH; -C(=W)SH; -C(=O)SR²; -C(=W)SR²; -C(=O)NH₂; -C(=W)NH₂; -C(=O)-NHR²; -C(=W)NHR²; -C(=O)NR²R³; -C(=W)-NR²R³; -NH₂; -NHR²; -NR²R³; -NHCO-C₁₋₃alkyl; -NR²SO₂-C₁₋₃alkyl; -NHCO-C₁₋₃alkyl; -NR²CO-C₁₋₃alkyl; -S(O)_n-R³; C₁₋₃ alkoxy; C₁₋₃thioether; or an amino acid residue;

optionally in a pharmaceutically acceptable carrier or diluent.

Claim 28 (currently amended): A method for the treatment ~~or prophylaxis~~ of an HIV-infection in a host, wherein the HIV has a mutation at lysine 103 → asparagine and/or tyrosine 181 → cysteine in HIV reverse transcriptase, comprising administering to said host an effective anti-HIV treatment amount of a compound of formula (I):



or a pharmaceutically acceptable salt thereof, wherein

R^1 is hydrogen; acyl; $-C(=O)H$; $-C(=W)H$; $-C(=O)R^2$; $-C(=W)R^2$; $-C(=O)OH$; $-C(=W)OH$; $-C(=O)OR^2$; $-C(=W)OR^2$; $-C(=O)SH$; $-C(=W)SH$; $-C(=O)SR^2$; $-C(=W)SR^2$; $-C(=O)NH_2$; $-C(=W)NH_2$; $-C(=O)NHR^2$; $-C(=W)NHR^2$; $-C(=O)NR^2R^3$; $-C(=W)NR^2R^3$; $-C(=W)NH(CH_2)_p$ -(amino acid); or $-(CH_2)_p$ -(amino acid);

$R^{4'}$, $R^{5'}$, $R^{6'}$, $R^{7'}$, $R^{2''}$, $R^{3''}$, $R^{4''}$, $R^{5''}$ and $R^{6''}$ are each independently H; halo; $-NO_2$; $-CN$; $-OH$; $-OR^2$; $-SH$; $-SR^2$; $-NH_2$; $-NHR^2$; $-NR^2R^3$; $-NHSO_2-C_{1-3}alkyl$; $-NR^2SO_2-C_{1-3}alkyl$; $-NHCO-C_{1-3}alkyl$; $-NR^2CO-C_{1-3}alkyl$; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH_3 ; CF_3 ; vinyl bromide; $-CR^2R^2-S(O)_n-R^3$; $-CR^2R^2NH_2$; $-CR^2R^2NHR^2$; $-CR^2R^2NR^2R^3$; $-CR^2R^2-C(=O)R^2$; alkacyl; optionally substituted or unsubstituted acyl; $-C(=O)H$; $-C(=W)H$; $-C(=O)R^2$; $-C(=W)R^2$; $-C(=O)OH$; $-C(=W)OH$; $-C(=O)OR^2$; $-C(=W)OR^2$; $-C(=O)-SH$; $-C(=W)SH$; $-C(=O)SR^2$; $-C(=W)SR^2$; $-C(=O)NH_2$; $-C(=W)NH_2$; $-C(=O)NHR^2$; $-C(=W)NHR^2$; $-C(=O)NR^2R^3$; $-C(=W)-NR^2R^3$; $-C(=W)NH(CH_2)_p$ -(amino acid); an amino acid; or $-(CH_2)_p$ -(amino acid);

wherein if $R^{5'}$ is ~~hydrogen~~, F, Cl, Br, $-NO_2$, $-CN$, $-OR^2$, $-NR^2R^2$, $-NHSO_2-C_{1-3}alkyl$; or $-NHCO-C_{1-3}alkyl$, then at least one of $R^{4'}$, $R^{6'}$ and $R^{7'}$ is not hydrogen; or alternatively, wherein at least two of $R^{4'}$, $R^{5'}$, $R^{6'}$, $R^{7'}$ are not hydrogen;

Z is optionally substituted or unsubstituted acyl, $-C(=O)NH_2$; $-C(=W)-NH_2$; $-C(=O)NHR^2$; $-C(=W)NHR^2$; $-C(=O)NR^2R^3$; $-C(=W)NR^2R^3$; $-C(=W)NH(CH_2)_p$ -(amino acid); an amino acid; $-(CH_2)_p$ -(amino acid); $-C(=O)R^3$; $-C(=O)H$; $-C(=W)H$; $-C(=O)R^2$; $-C(=W)R^2$; $-C(=O)OR^3$; $-C(=O)OH$; $-C(=W)OH$; $-C(=O)OR^2$; $-C(=W)-OR^2$; $-C(=O)-SH$; $-C(=W)SH$; $-C(=O)SR^2$; $-C(=W)SR^2$;

optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH₃; CF₃; vinyl bromide; -CR²R²-S(O)_n-R³; -CR²R²NH₂; -CR²R²NHR²; -CR²R²NR²R³; -CR²R²-C(=O)R²; -CN; or halo;

Y is O; S; S(O) or S(O)₂ S(O)_n;

each W is independently O; S; NH-NH₂; NR²-NHR²; -NR²R²; -N-CN; -N-NH₂; -N-NHR²; -N-NR²R³; -N-OH; or -N-OR²;

each R² is independently hydrogen; an optionally substituted or unsubstituted branched or unbranched lower alkyl, alkenyl or alkynyl; CH₃; CF₃; or vinyl bromide;

each R³ is independently hydrogen; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH₃; CF₃; vinyl bromide; -CR²R²-S(O)_n-R²; -CR²R²NH₂; -CR²R²NHR²; -CR²R²NR²R²; -CR²R²-C(=O)R²; optionally substituted or unsubstituted aryl; optionally substituted or unsubstituted heterocycle; optionally substituted or unsubstituted alkylaryl; optionally substituted or unsubstituted alkylheterocycle; optionally substituted or unsubstituted aralkyl; or optionally substituted or unsubstituted heterocycle-alkyl;

each n is independently 0, 1 or 2;

each p is independently 0, 1, 2, 3, 4 or 5; and

wherein the optionally substituted branched or unbranched alkyl, alkenyl, alkynyl, lower alkyl, lower alkenyl; lower alkynyl; acyl; aryl; heterocycle; alkaryl; ~~alkheterocycle~~ alkylheterocycle; arylalkyl; or alkylheterocycle optionally is substituted with one or more of halogen; -OH; -OR²; -SH; -SR²; oxime; hydrazine; -C(=O)H; -C(=W)H; -C(=O)R²; -C(=W)R²; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)OR²; -C(=O)SH; -C(=W)SH; -C(=O)SR²; -C(=W)SR²; -C(=O)NH₂; -C(=W)NH₂; -C(=O)-NHR²; -C(=W)NHR²; -C(=O)NR²R³; -C(=W)-NR²R³; -NH₂; -NHR²; -NR²R³; -NHCO-C₁₋₃alkyl; -NR²SO₂-C₁₋₃alkyl; -NHCO-C₁₋₃alkyl; -NR²CO-C₁₋₃alkyl; -S(O)_n-R³; C₁₋₃ alkoxy; C₁₋₃thioether; or an amino acid residue;

in combination and/or alternation with one or more other anti-HIV agent, optionally in a pharmaceutically acceptable carrier or diluent.

Claim 29 (original): The method of any one of claims 19-28 wherein the host is a human.

Claim 30 (currently amended): The method of any one of claims 19 or 24 wherein:

R¹ is hydrogen;

$R^{4'}$, $R^{5'}$, $R^{6'}$, $R^{7'}$ are each independently H; halo; $-NO_2$; $-CN$; $-OR^2$; $-NR^2R^3$; $-NHSO_2-C_{1-3}alkyl$; $-NHCO-C_{1-3}alkyl$; oxime, hydrazine, or C_{1-3} alkyl or alkenyl optionally substituted with one or more of $-OH$, $-SH$, $-C(O)H$, $-COOH$, halogen, $-NR^2R^2$, $-C_{1-3}$ alkoxy or C_{1-3} thioether, wherein if $R^{5'}$ is hydrogen, F, Cl, Br, $-NO_2$, $-CN$, $-OR^2$, $-NR^2R^2$, $-NHSO_2-C_{1-3}alkyl$; or $-NHCO-C_{1-3}alkyl$, then at least one of $R^{4'}$, $R^{6'}$ and $R^{7'}$ is not hydrogen; or alternatively, wherein at least two of $R^{4'}$, $R^{6'}$ or $R^{7'}$ is not hydrogen;

$R^{2''}$, $R^{3''}$, $R^{4''}$, $R^{5''}$ and $R^{6''}$ are each independently H; halo; $-NO_2$; $-CN$; $-OH$; $-OR^2$; $-NR^2R^3$; $-NHSO_2-C_{1-3}alkyl$; $-NHCO-C_{1-3}alkyl$; $C_{1-5}alkoxy$; oxime, hydrazine, $-C_{1-5}$ alkyl or alkenyl optionally ~~substituted~~ substituted with one or more of $-OH$, $-SH$, $-C(O)H$, $-COOH$, halogen, $-NR^2R^2$, $-C_{1-5}$ thioether or $-C_{1-5}$ alkoxy,

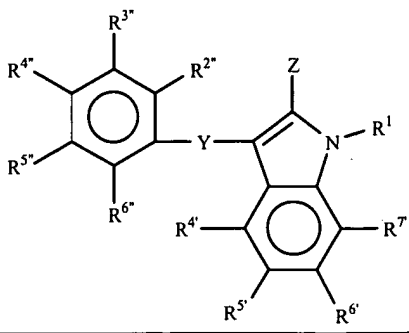
Z is $-CN$, $-C(=W)NR^2R^3$, $-C(=O)R^3$, $-C(=O)OR^3$, $-CR^2R^2-S(O)_n-R^3$, $-CR^2R^2NHR^2$, $CR^2R^2-CO-R^2$ or substituted or unsubstituted lower alkyl;

Y is O; S; S(O) or S(O)₂ $S(\ominus)_n$;

each W is independently O; S; $-N-CN$ or $-N-OR^2$; and

each R^2 is independently hydrogen or C_{1-3} alkyl.

Claim 31(currently amended): ~~The A method of any one of claims 19 or 24~~ for the treatment of an HIV infection in a host comprising administering to said host an effective anti-HIV treatment amount of a compound of formula (I):



or a pharmaceutically acceptable salt thereof, wherein:

R^1 is hydrogen;

$R^{4'}$, $R^{5'}$, $R^{6'}$, $R^{7'}$ are each independently H; halo; $-NO_2$; $-CN$; $-OR^2$; $-NR^2R^3$; $-NHSO_2-C_{1-3}alkyl$; $-NHCO-C_{1-3}alkyl$; oxime, hydrazine, or C_{1-3} alkyl or alkenyl optionally substituted with one or more of $-OH$, $-SH$, $-C(O)H$, $-COOH$, halogen,

$-\text{NR}^2\text{R}^2$, $-\text{C}_{1-3}$ alkoxy or C_{1-3} thioether, wherein if $\text{R}^{5'}$ is ~~hydrogen~~, F, Cl, Br, $-\text{NO}_2$, $-\text{CN}$, $-\text{OR}^2$, $-\text{NR}^2\text{R}^2$, $-\text{NHSO}_2\text{-C}_{1-3}\text{alkyl}$; or $-\text{NHCO-C}_{1-3}\text{alkyl}$, then at least one of $\text{R}^{4'}$, $\text{R}^{6'}$ and $\text{R}^{7'}$ is not hydrogen; or alternatively, wherein at least two of $\text{R}^{4'}$, $\text{R}^{6'}$ or $\text{R}^{7'}$ is not hydrogen;

$\text{R}^{6'}$ is H; halo; $-\text{NO}_2$; $-\text{CN}$; $-\text{NR}^2\text{R}^3$; $-\text{NHSO}_2\text{-C}_{1-3}\text{alkyl}$; $-\text{NHCO-C}_{1-3}\text{alkyl}$; oxime, hydrazine, or C_{1-3} alkyl or alkenyl optionally substituted with one or more of $-\text{OH}$, $-\text{SH}$, $-\text{C(O)H}$, $-\text{COOH}$, halogen, $-\text{NR}^2\text{R}^2$, $-\text{C}_{1-3}$ alkoxy or C_{1-3} thioether;

$\text{R}^{2''}$, $\text{R}^{3''}$, $\text{R}^{4''}$, $\text{R}^{5''}$ and $\text{R}^{6''}$ are each independently H; halo; $-\text{NO}_2$; $-\text{CN}$; $-\text{OR}^2$; $-\text{NHSO}_2\text{-C}_{1-3}\text{alkyl}$; $-\text{NHCO-C}_{1-3}\text{alkyl}$; oxime, hydrazine, $-\text{C}_{1-5}$ alkyl or alkenyl optionally substituted with one or more of $-\text{OH}$, $-\text{SH}$, $-\text{C(O)H}$, $-\text{COOH}$, halogen, $-\text{NR}^2\text{R}^2$, $-\text{C}_{1-5}$ thioether or $-\text{C}_{1-5}$ alkoxy,

Z is $-\text{C(=W)NR}^2\text{R}^3$ or $-\text{C(=O)R}^3$; $-\text{CR}^2\text{R}^2\text{NHR}^2$, $\text{CR}^2\text{R}^2\text{-CO-R}^2$ or substituted or unsubstituted lower alkyl;

Y is O or S(O)_n ;

each W is independently O; S; $-\text{N-CN}$ or $-\text{N-OR}^2$;

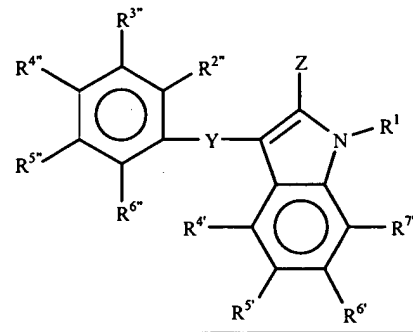
each R^2 is independently hydrogen or C_{1-3} alkyl; and

each ~~R^3~~ R^3 is independently C_{1-5} alkyl, C_{1-5} alkenyl, aryl or heterocycle unsubstituted or substituted with one or more of $\text{C(O)NR}^2\text{R}^2$, $-\text{NR}^2\text{R}^2$, $-(\text{CH})_m\text{C(O)NR}^2\text{R}^2$, $-(\text{CH})_m\text{C(=W)-NH(CH}_2)_p\text{-(amino acid)}$.

each n is independently 0, 1 or 2;

each p is independently 0, 1, 2, 3, 4 or 5

Claim 32(currently amended): ~~The A method of any one of claims 19 or 24 for the treatment of~~
an HIV infection in a host comprising administering to said host an effective anti-HIV
treatment amount of a compound of formula (I):



or a pharmaceutically acceptable salt thereof, wherein:

R¹ is hydrogen;

R^{4'}, R^{5'}, R^{6'}, R^{7'} are each independently H; halo; -NO₂; -CN; -OR²; -NR²R³; -NHSO₂-C₁₋₃alkyl; -NHCO-C₁₋₃alkyl; oxime, hydrazine, or C₁₋₃ alkyl or alkenyl optionally substituted with one or more of -OH, -SH, -C(O)H, -COOH, halogen, -NR²R², -C₁₋₃ alkoxy or C₁₋₃ thioether, wherein if R^{5'} is hydrogen, F, Cl, Br, -NO₂, -CN, -OR², -NR²R², -NHSO₂-C₁₋₃alkyl; or -NHCO-C₁₋₃alkyl, then at least one of R^{4'}, R^{6'} and R^{7'} is not hydrogen; or alternatively, wherein at least two of R^{4'}, R^{6'} or R^{7'} is not hydrogen;

R^{2''}, R^{3''}, R^{4''}, R^{5''} and R^{6''} are each independently H; halo; -NO₂; -CN; -OH; -OR²; -NR²R³; -NHSO₂-C₁₋₃alkyl; -NHCO-C₁₋₃alkyl; C₁₋₅alkoxy; oxime, hydrazine, -C₁₋₅ alkyl or alkenyl optionally substituted with one or more of -OH, -SH, -C(O)H, -COOH, halogen, -NR²R², -C₁₋₅ thioether or -C₁₋₅ alkoxy;

Z is -C(=W)NR²R³ or -C(=O)R³; -CR²R²NHR², CR²R²-CO-R² or substituted or unsubstituted lower alkyl;

Y is O or S(O)_n;

each W is independently O; S; -N-CN or -N-OR²;

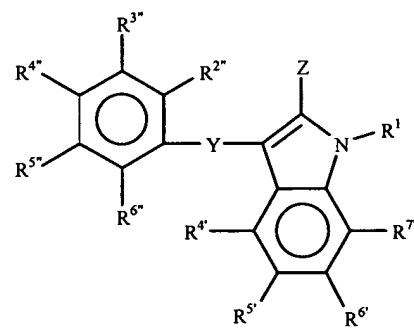
each R² is independently hydrogen or C₁₋₃ alkyl; and

each R³ is independently C₁₋₅ alkyl, C₁₋₅ alkenyl, aryl or heterocycle unsubstituted or substituted with one or more of C(O)NR²R², -NR²R², -(CH)_mC(O)NR²R², -(CH)_mC(=W)-NH(CH₂)_p-(amino acid).

each n is independently 0, 1 or 2;

each p is independently 0, 1, 2, 3, 4 or 5

Claim 33 (currently amended): The ~~A~~ method of ~~any one of claims 19 or 24~~ for the treatment of an HIV infection in a host comprising administering to said host an effective anti-HIV treatment amount of a compound of formula (I):



or a pharmaceutically acceptable salt thereof, wherein:

R^1 is hydrogen;

$R^{4'}$, $R^{5'}$, $R^{6'}$, $R^{7'}$ are each independently H or halo;

$R^{2''}$, $R^{3''}$, $R^{4''}$, $R^{5''}$ and $R^{6''}$ are each independently H; halo; $-\text{NO}_2$; $-\text{CN}$; $-\text{OR}^2$; $-\text{NHSO}_2\text{-C}_{1-3}\text{alkyl}$; $-\text{NHCO-C}_{1-3}\text{alkyl}$; oxime, hydrazine, $-\text{C}_{1-5}$ alkyl or alkenyl optionally ~~substituted~~ substituted with one or more of $-\text{OH}$, $-\text{SH}$, $-\text{C(O)H}$, $-\text{COOH}$, halogen, $-\text{NR}^2\text{R}^2$, $-\text{C}_{1-5}$ thioether or $-\text{C}_{1-5}$ alkoxy,

wherein if $R^{5'}$ is halo, then at least one of $R^{4'}$, $R^{6'}$ and $R^{7'}$ is not hydrogen; or alternatively, wherein at least two of $R^{4'}$, $R^{5'}$, $R^{6'}$, $R^{7'}$ are not hydrogen;

Z is $-\text{C(=W)NR}^2\text{R}^3$, $-\text{C(=O)R}^3$ or $-\text{CR}^2\text{R}^2\text{NHR}^2$;

Y is O or S(O)_n ;

each W is independently O; S; $-\text{N-CN}$ or $-\text{N-OR}^2$;

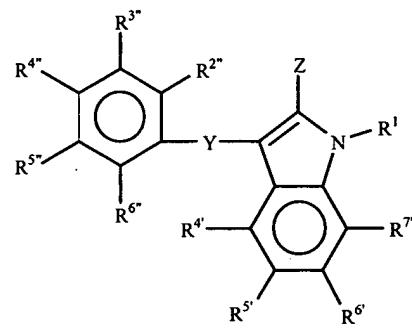
each R^2 is independently hydrogen or C_{1-3} alkyl; and

each ~~R^3~~ R^3 is independently C_{1-5} alkyl, C_{1-5} alkenyl, aryl or heterocycle unsubstituted or substituted with one or more of $\text{C(O)NR}^2\text{R}^2$, $-\text{NR}^2\text{R}^2$, $-(\text{CH})_m\text{C(O)NR}^2\text{R}^2$, $-(\text{CH})_m\text{C(=W)-NH(CH}_2)_p\text{-(amino acid)}$.

each n is independently 0, 1 or 2;

each p is independently 0, 1, 2, 3, 4 or 5

Claim 34(currently amended): The ~~A~~ method of any one of claims 19 or 24 for the treatment of an HIV infection in a host comprising administering to said host an effective anti-HIV treatment amount of a compound of formula (I):



or a pharmaceutically acceptable salt thereof, wherein:

R¹ is hydrogen;

R^{4'}, R^{5'}, R^{6'}, R^{7'} are each independently H or halo;

R^{2''}, R^{3''}, R^{4''}, R^{5''} and R^{6''} are each independently H; halo; -NO₂; -CN; -OR²; -NHSO₂-C₁₋₃alkyl; -NHCO-C₁₋₃alkyl; oxime, hydrazine, -C₁₋₅ alkyl or alkenyl optionally ~~substituted~~ substituted with one or more of -OH, -SH, -C(O)H, -COOH, halogen, -NR²R², -C₁₋₅ thioether or -C₁₋₅ alkoxy,

wherein if R^{5'} is halo, then at least one of R^{4'}, R^{6'} and R^{7'} is not hydrogen; or alternatively, wherein at least two of R^{4'}, R^{5'}, R^{6'}, R^{7'} are not hydrogen;

Z is -C(=O)R³;

Y is O or S(O)_n;

each W is independently O; S; -N-CN or -N-OR²;

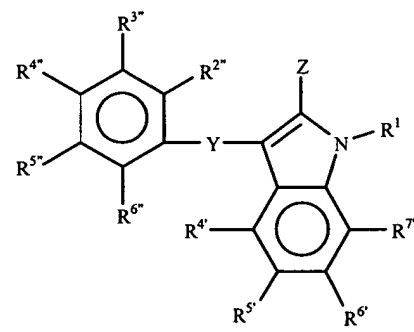
each R² is independently hydrogen or C₁₋₃ alkyl; and

each ~~R³~~ R³ is independently C₁₋₅ alkyl, C₁₋₅ alkenyl, aryl or heterocycle unsubstituted or substituted with one or more of C(O)NR²R², -NR²R², -(CH)_mC(O)NR²R², -(CH)_mC(=W)-NH(CH₂)_p-(amino acid).

each n is independently 0, 1 or 2;

each p is independently 0, 1, 2, 3, 4 or 5

Claim 35(currently amended): The A method of any one of claims 19 or 24 for the treatment of an HIV infection in a host comprising administering to said host an effective anti-HIV treatment amount of a compound of formula (I):



or a pharmaceutically acceptable salt thereof, wherein:

R¹ is hydrogen;

R^{4'}, R^{5'}, R^{6'}, R^{7'} are each independently H or halo;

R^{2''}, R^{3''}, R^{4''}, R^{5''} and R^{6''} are each independently H; halo; or -C₁₋₅ alkyl or alkenyl optionally substituted with one or more of -OH, -SH, -C(O)H, -COOH, halogen, -NR²R², -C₁₋₅ thioether or -C₁₋₅ alkoxy,

wherein if R^{5'} is halo, then at least one of R^{4'}, R^{6'} and R^{7'} is not hydrogen; or alternatively, wherein at least two of R^{4'}, R^{5'}, R^{6'}, R^{7'} are not hydrogen;

Z is -C(=W)NR²R³ or -C(=O)R³;

Y is O or S(O)_n;

each W is independently O; S; -N-CN or -N-OR²;

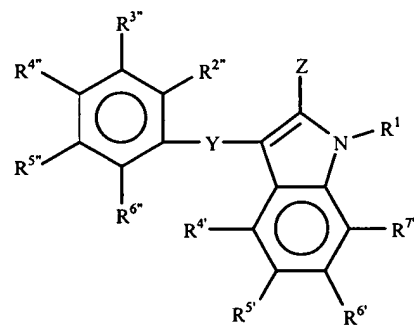
each R² is independently hydrogen or C₁₋₃ alkyl; and

each R³ is independently C₁₋₅ alkyl, C₁₋₅ alkenyl, aryl or heterocycle unsubstituted or substituted with one or more of C(O)NR²R², -NR²R², -(CH)_mC(O)NR²R², -(CH)_mC(=W)-NH(CH₂)_p-(amino acid).

each n is independently 0, 1 or 2;

each p is independently 0, 1, 2, 3, 4 or 5

Claim 36(currently amended): ~~The A method of any one of claims 19 or 24~~ for the treatment of an HIV infection in a host comprising administering to said host an effective anti-HIV treatment amount of a compound of formula (I):



or a pharmaceutically acceptable salt thereof, wherein:

R¹ is hydrogen;

R^{4'}, R^{5'}, R^{6'}, R^{7'} are each independently H or halo;

R^{2''}, R^{3''}, R^{4''}, R^{5''} and R^{6''} are each independently H or -C₁₋₅ alkyl or alkenyl optionally ~~substituted~~ substituted with one or more of -OH, -SH, -C(O)H, -COOH, halogen, -NR²R², -C₁₋₅ thioether or -C₁₋₅ alkoxy,

wherein if R^{5'} is halo, then at least one of R^{4'}, R^{6'} and R^{7'} is not hydrogen; or alternatively, wherein at least two of R^{4'}, R^{5'}, R^{6'}, R^{7'} are not hydrogen;

Z is -C(=W)NR²R³ or -C(=O)R³;

Y is O or S(O)_n;

each W is independently O or S;

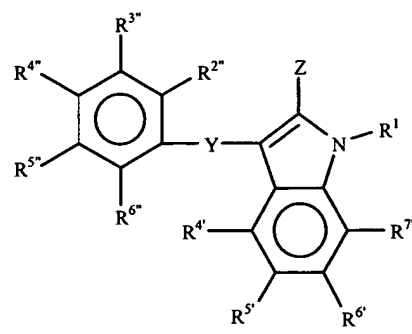
each R² is independently hydrogen or C₁₋₃ alkyl; and

each ~~R³~~ R³ is independently C₁₋₅ alkyl, C₁₋₅ alkenyl, aryl or heterocycle unsubstituted or substituted with one or more of C(O)NR²R², -NR²R², -(CH)_mC(O)NR²R², -(CH)_mC(=W)-NH(CH₂)_p-(amino acid).

each n is independently 0, 1 or 2;

each p is independently 0, 1, 2, 3, 4 or 5

Claim 37(currently amended): The ~~A~~ method of ~~any one of claims 19 or 24~~ for the treatment of an HIV infection in a host comprising administering to said host an effective anti-HIV treatment amount of a compound of formula (I):



or a pharmaceutically acceptable salt thereof, wherein:

R¹ is hydrogen;

R^{4'}, R^{5'}, R^{6'}, R^{7'} are each independently H or halo, wherein at least two of R^{4'}, R^{5'}, R^{6'} or R^{7'} is not hydrogen;

R^{2''}, R^{3''}, R^{4''}, R^{5''} and R^{6''} are each independently H; halo; -NO₂; -CN; -OR²; -NHCO-C₁₋₃alkyl; -NHCO-C₁₋₃alkyl; oxime, hydrazine, -C₁₋₅ alkyl or alkenyl optionally substituted with one or more of -OH, -SH, -C(O)H, -COOH, halogen, -NR²R², -C₁₋₅ thioether or -C₁₋₅ alkoxy;

Z is -C(=W)NR²R³ or -C(=O)R³;

Y is O or S(O)_n;

each W is independently O; S; -N-CN or -N-OR²;

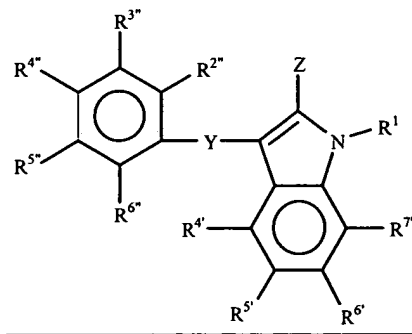
each R² is independently hydrogen or C₁₋₃ alkyl; and

each R^3 is independently C_{1-5} alkyl, C_{1-5} alkenyl, aryl or heterocycle unsubstituted or substituted with one or more of $C(O)NR^2R^2$, $-NR^2R^2$, $-(CH)_mC(O)NR^2R^2$, $-(CH)_mC(=W)-NH(CH_2)_p$ -(amino acid).

each n is independently 0, 1 or 2;

each p is independently 0, 1, 2, 3, 4 or 5

Claim 38(currently amended): The A method of any one of claims 19 or 24 for the treatment of an HIV infection in a host comprising administering to said host an effective anti-HIV treatment amount of a compound of formula (I):



or a pharmaceutically acceptable salt thereof, wherein:

R^1 is hydrogen;

$R^{4'}$, $R^{5'}$, $R^{6'}$, $R^{7'}$ are each independently H or halo, wherein at least two of $R^{4'}$, $R^{5'}$, $R^{6'}$ or $R^{7'}$ is not hydrogen;

$R^{2''}$, $R^{3''}$, $R^{4''}$, $R^{5''}$ and $R^{6''}$ are each independently H or $-C_{1-5}$ alkyl or alkenyl optionally substituted with one or more of $-OH$, $-SH$, $-C(O)H$, $-COOH$, halogen, $-NR^2R^2$, $-C_{1-5}$ thioether or $-C_{1-5}$ alkoxy,

Z is $-C(=W)NR^2R^3$ or $-C(=O)R^3$;

Y is O or $S(O)_n$;

each W is independently O; S; $-N-CN$ or $-N-OR^2$;

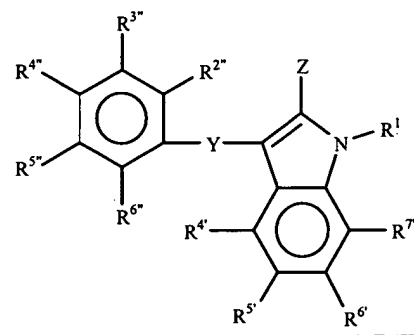
each R^2 is independently hydrogen or C_{1-3} alkyl; and

each ~~R³~~ R³ is independently C₁₋₅ alkyl, C₁₋₅ alkenyl, aryl or heterocycle unsubstituted or substituted with one or more of C(O)NR²R², -NR²R², -(CH)_mC(O)NR²R², -(CH)_mC(=W)-NH(CH₂)_p-(amino acid).

each n is independently 0, 1 or 2;

each p is independently 0, 1, 2, 3, 4 or 5

Claim 39(currently amended): ~~The A method of any one of claims 19 or 24 for the treatment of~~
an HIV infection in a host comprising administering to said host an effective anti-HIV
treatment amount of a compound of formula (I):



or a pharmaceutically acceptable salt thereof, wherein:

R¹ is hydrogen;

R^{4'}, R^{5'}, R^{6'}, R^{7'} are each independently H or halo, wherein at least two of R^{4'}, R^{5'}, R^{6'} or R^{7'} is not hydrogen;

R^{2''}, R^{3''}, R^{4''}, R^{5''} and R^{6''} are each independently H or -C₁₋₅ alkyl or alkenyl optionally substituted with one or more of -OH, -SH, -C(O)H, -COOH, halogen, -NR²R², -C₁₋₅ thioether or -C₁₋₅ alkoxy,

Z is -C(=O)R³;

Y is O or S(O)_n;

each W is independently O; S; -N-CN or -N-OR²;

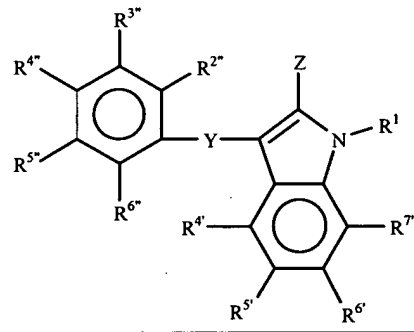
each R² is independently hydrogen or C₁₋₃ alkyl; and

each ~~R³~~ R³ is independently C₁₋₅ alkyl, C₁₋₅ alkenyl, aryl or heterocycle unsubstituted or substituted with one or more of C(O)NR²R², -NR²R², -(CH)_mC(O)NR²R², -(CH)_mC(=W)-NH(CH₂)_p-(amino acid).

each n is independently 0, 1 or 2;

each p is independently 0, 1, 2, 3, 4 or 5

Claim 40(currently amended): The ~~A~~ method of any one of claims 19 or 24 for the treatment of an HIV infection in a host comprising administering to said host an effective anti-HIV treatment amount of a compound of formula (I):



or a pharmaceutically acceptable salt thereof, wherein:

R¹ is hydrogen;

R^{4'}, R^{5'}, R^{6'}, R^{7'} are each independently H or halo;

R^{2''}, R^{3''}, R^{4''}, R^{5''} and R^{6''} are each independently H or -C₁₋₅ alkyl or alkenyl optionally substituted with one or more of -OH, -SH, -C(O)H, -COOH, halogen, -NR²R², -C₁₋₅ thioether or -C₁₋₅ alkoxy,

wherein if R^{5'} is halo, then at least one of R^{4'}, R^{6'} and R^{7'} is not hydrogen; or alternatively, wherein at least two of R^{4'}, R^{5'}, R^{6'}, R^{7'} are not hydrogen;

Z is -C(=W)NR²R³ or -C(=O)R³;

Y is O or S(O)_n;

each W is independently O;

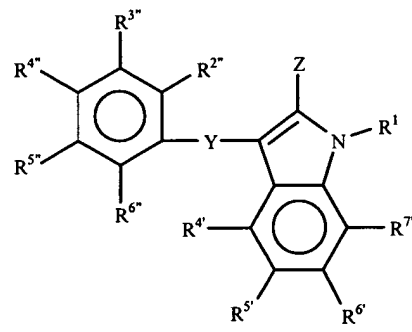
each R² is independently hydrogen or C₁₋₃ alkyl; and

each ~~R³~~ R³ is independently C₁₋₅ alkyl, C₁₋₅ alkenyl, aryl or heterocycle unsubstituted or substituted with one or more of C(O)NR²R², -NR²R², -(CH)_mC(O)NR²R², -(CH)_mC(=W)-NH(CH₂)_p-(amino acid).

each n is independently 0, 1 or 2;

each p is independently 0, 1, 2, 3, 4 or 5

Claim 41 (currently amended): The ~~A~~ method of ~~any one of claims 19 or 24~~ for the treatment of an HIV infection in a host comprising administering to said host an effective anti-HIV treatment amount of a compound of formula (I):



or a pharmaceutically acceptable salt thereof, wherein:

R¹ is hydrogen;

R^{4'}, R^{5'}, R^{6'}, R^{7'} are each independently H or halo, wherein at least two of R^{4'}, R^{5'}, R^{6'} or R^{7'} is not hydrogen;

R^{2''}, R^{3''}, R^{4''}, R^{5''} and R^{6''} are each independently H or -C₁₋₅ alkyl or alkenyl optionally substituted with one or more of -OH, -SH, -C(O)H, -COOH, halogen, -NR²R², -C₁₋₅ thioether or -C₁₋₅ alkoxy,

Z is -C(=W)NR²R³;

Y is O or S(O)_n;

each W is independently O or S;

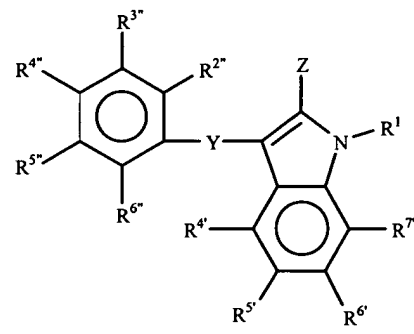
each R² is independently hydrogen or C₁₋₃ alkyl; and

each R^3 is independently C_{1-5} alkyl, C_{1-5} alkenyl, aryl or heterocycle unsubstituted or substituted with one or more of $C(O)NR^2R^2$, $-NR^2R^2$, $-(CH)_mC(O)NR^2R^2$, $-(CH)_mC(=W)-NH(CH_2)_p-(\text{amino acid})$.

each n is independently 0, 1 or 2;

each p is independently 0, 1, 2, 3, 4 or 5

Claim 42(currently amended): The ~~A~~ method of ~~any one of claims 19 or 24~~ for the treatment of an HIV infection in a host comprising administering to said host an effective anti-HIV treatment amount of a compound of formula (I):



or a pharmaceutically acceptable salt thereof, wherein:

R^1 is hydrogen;

$R^{4'}$, $R^{5'}$, $R^{6'}$, $R^{7'}$ are each independently H or halo;

$R^{2''}$, $R^{3''}$, $R^{4''}$, $R^{5''}$ and $R^{6''}$ are each independently H or $-C_{1-5}$ alkyl or alkenyl optionally substituted with one or more of $-OH$, $-SH$, $-C(O)H$, $-COOH$, halogen, $-NR^2R^2$, $-C_{1-5}$ thioether or $-C_{1-5}$ alkoxy,

wherein if $R^{5'}$ is halo, then at least one of $R^{4'}$, $R^{6'}$ and $R^{7'}$ is not hydrogen; or alternatively, wherein at least two of $R^{4'}$, $R^{5'}$, $R^{6'}$, $R^{7'}$ are not hydrogen;

Z is $-C(=W)NR^2R^3$;

Y is $S(O)_n$;

each W is independently O;

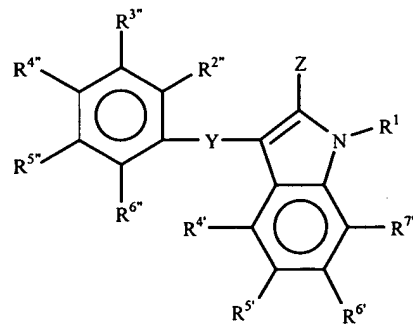
each R^2 is independently hydrogen or C_{1-3} alkyl; and

each R^3 is independently C_{1-5} alkyl, C_{1-5} alkenyl, aryl or heterocycle unsubstituted or substituted with one or more of $C(O)NR^2R^2$, $-NR^2R^2$, $-(CH)_mC(O)NR^2R^2$, $-(CH)_mC(=W)-NH(CH_2)_p-(\text{amino acid})$.

each n is independently 0, 1 or 2;

each p is independently 0, 1, 2, 3, 4 or 5

Claim 43(currently amended): The A method of any one of claims 19 or 24 for the treatment of an HIV infection in a host comprising administering to said host an effective anti-HIV treatment amount of a compound of formula (I):



or a pharmaceutically acceptable salt thereof, wherein:

R^1 is hydrogen;

$R^{4'}$, $R^{5'}$, $R^{6'}$, $R^{7'}$ are each independently H or halo;

$R^{2''}$, $R^{3''}$, $R^{4''}$, $R^{5''}$ and $R^{6''}$ are each independently H; halo; $-NO_2$; $-CN$; $-OR^2$; $-NHSO_2-C_{1-3}alkyl$; $-NHCO-C_{1-3}alkyl$; oxime, hydrazine, $-C_{1-5}$ alkyl or alkenyl optionally substituted with one or more of $-OH$, $-SH$, $-C(O)H$, $-COOH$, halogen, $-NR^2R^2$, $-C_{1-5}$ thioether or $-C_{1-5}$ alkoxy,

wherein if $R^{5'}$ is halo, then at least one of $R^{4'}$, $R^{6'}$ and $R^{7'}$ is not hydrogen; or alternatively, wherein at least two of $R^{4'}$, $R^{5'}$, $R^{6'}$, $R^{7'}$ are not hydrogen;

Z is $-C(=O)R^3$;

Y is $S(O)_n$;

each W is independently O;

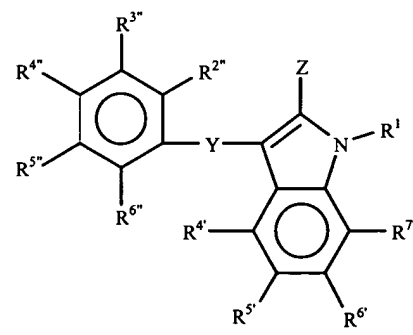
each R^2 is independently hydrogen or C_{1-3} alkyl; and

each ~~R^3~~ R^3 is independently C_{1-5} alkyl, C_{1-5} alkenyl, aryl or heterocycle unsubstituted or substituted with one or more of $C(O)NR^2R^2$, $-NR^2R^2$, $-(CH)_mC(O)NR^2R^2$, $-(CH)_mC(=W)-NH(CH_2)_p$ -(amino acid).

each n is independently 0, 1 or 2;

each p is independently 0, 1, 2, 3, 4 or 5

Claim 44(currently amended): ~~The A method of any one of claims 19 or 24~~ for the treatment of an HIV infection in a host comprising administering to said host an effective anti-HIV treatment amount of a compound of formula (I):



or a pharmaceutically acceptable salt thereof, wherein:

R^1 is hydrogen;

$R^{4'}$, $R^{5'}$, $R^{6'}$, $R^{7'}$ are each independently H or halo, wherein at least two of $R^{4'}$, $R^{5'}$, $R^{6'}$ or $R^{7'}$ is not hydrogen;

$R^{2''}$, $R^{3''}$, $R^{4''}$, $R^{5''}$ and $R^{6''}$ are each independently H; halo; $-NO_2$; $-CN$; $-OR^2$; $-NHSO_2-C_{1-3}alkyl$; $-NHCO-C_{1-3}alkyl$; oxime, hydrazine, $-C_{1-5}$ alkyl or alkenyl optionally substituted with one or more of $-OH$, $-SH$, $-C(O)H$, $-COOH$, halogen, $-NR^2R^2$, $-C_{1-5}$ thioether or $-C_{1-5}$ alkoxy,

Z is $-C(=O)R^3$;

Y is O or $S(O)_n$;

each W is independently O;

each R^2 is independently hydrogen or C_{1-3} alkyl; and

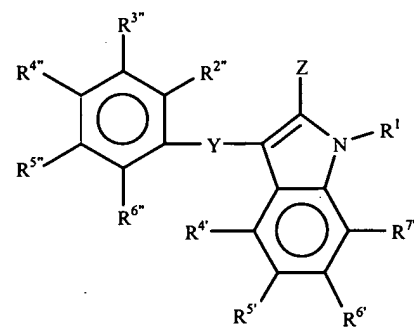
each ~~R^3~~ R^3 is independently C_{1-5} alkyl, C_{1-5} alkenyl, aryl or heterocycle unsubstituted or substituted with one or more of $C(O)NR^2R^2$, $-NR^2R^2$, $-(CH)_mC(O)NR^2R^2$, $-(CH)_mC(=W)-NH(CH_2)_p-(\text{amino acid})$.

each n is independently 0, 1 or 2;

each p is independently 0, 1, 2, 3, 4 or 5

Claim 45(Previously presented) The method of any one of claims 19 or 24 wherein R^1 is hydrogen.

Claim 46(currently amended): ~~The A method of any one of claims 19 or 24~~ for the treatment of an HIV infection in a host comprising administering to said host an effective anti-HIV treatment amount of a compound of formula (I):



or a pharmaceutically acceptable salt thereof, wherein:

R^1 is hydrogen;

$R^{4'}$, $R^{5'}$, $R^{6'}$, $R^{7'}$ are each independently H or halo, wherein at least two of $R^{4'}$, $R^{5'}$, $R^{6'}$ or $R^{7'}$ is not hydrogen;

$R^{2''}$, $R^{3''}$, $R^{4''}$, $R^{5''}$ and $R^{6''}$ are each independently H or $-C_{1-5}$ alkyl or alkenyl optionally substituted with one or more of $-OH$, $-SH$, $-C(O)H$, $-COOH$, halogen, $-NR^2R^2$, $-C_{1-5}$ thioether or $-C_{1-5}$ alkoxy,

Z is $-C(=W)NR^2R^3$;

Y is O or $S(O)_n$;

each W is independently O;

each R² is independently hydrogen or C₁₋₃ alkyl; and

each R³ is independently C₁₋₅ alkyl, C₁₋₅ alkenyl, aryl or heterocycle unsubstituted or substituted with one or more of C(O)NR²R², -NR²R², -(CH)_mC(O)NR²R², -(CH)_mC(=W)-NH(CH₂)_p-(amino acid).

each n is independently 0, 1 or 2;

each p is independently 0, 1, 2, 3, 4 or 5

Claim 47(Cancelled)

Claim 48(Cancelled)

Claim 49(previously presented): The method of any one of claims 19 or 24 wherein Z is -C(=O)NH₂; -C(=W)-NH₂; -C(=O)NHR²; -C(=W)NHR²; -C(=O)NR²R³; -C(=W)NR²R³; -C(=W)NH(CH₂)_p-(amino acid); -C(=O)R³; -C(=O)OR³; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)-OR².

Claim 50(previously presented): The method of any one of claims 19 or 24 wherein Z is -C(=O)NH₂; -C(=O)NHR² or -C(=O)NR²R³.

Claim 51 (currently amended): The method of any one of claims 19 or 24 wherein Y is ~~SO₂~~ SO₂.

Claim 52 (previously presented): The method of any one of claims 19 or 24 wherein R^{4'}, R^{5'}, R^{6'} and R^{7'} are each independently H or halo.

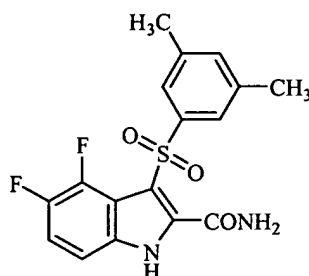
Claim 53(previously presented): The method of any one of claims 19 or 24 wherein at least two of R^{4'}, R^{5'}, R^{6'}, R^{7'} are not hydrogen.

Claim 54(previously presented): The method of any one of claims 19 or 24 wherein R^{2''}, R^{3''}, R^{4''}, R^{5''} and R^{6''} are each independently optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl.

Claim 55 (previously presented): The method of any one of claims 19 or 24 wherein $R^{2''}$, $R^{3''}$, $R^{4''}$, $R^{5''}$ and $R^{6''}$ are each independently unsubstituted unbranched alkyl.

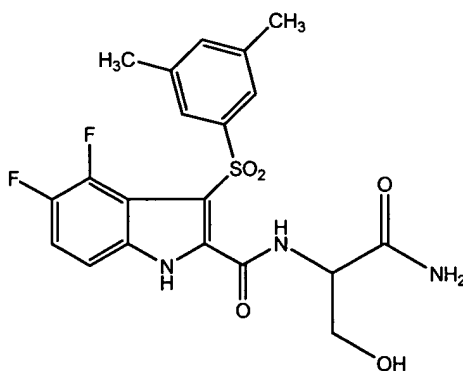
Claim 56 (currently amended): The method of any one of claims 19 or 24 wherein ~~R^1~~ R^1 is hydrogen.

Claim 57 (previously presented): The method of any one of claims 19 or 24 wherein the compound is a compound of formula



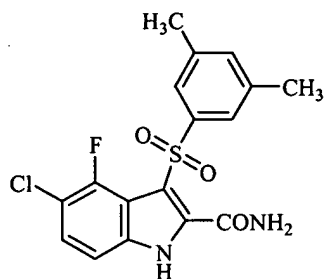
or a pharmaceutically acceptable salt thereof.

Claim 58 (previously presented): The method of any one of claims 19 or 24 wherein the compound is a compound of formula



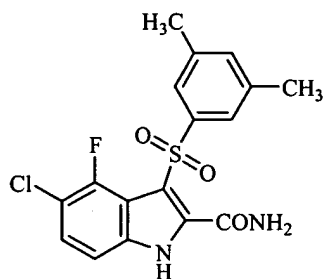
or a pharmaceutically acceptable salt thereof.

Claim 59 (previously presented): The method of any one of claims 19 or 24 wherein the compound is a compound of formula



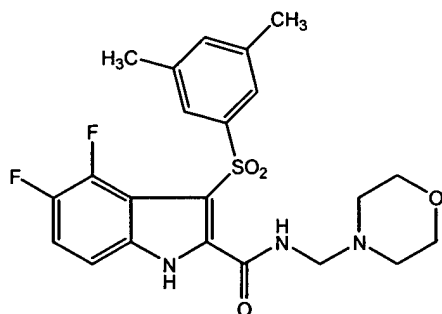
or a pharmaceutically acceptable salt thereof.

Claim 60(Previously presented): The method of any one of claims 19 or 24 wherein the compound is a compound of formula



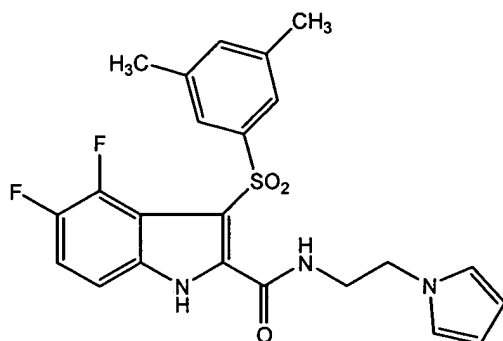
or a pharmaceutically acceptable salt thereof.

Claim 61 (Previously presented): The method of any one of claims 19 or 24 wherein the compound is a compound of formula



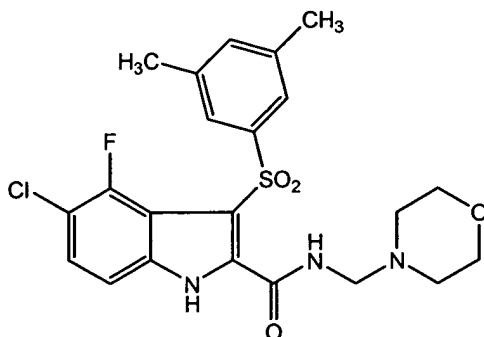
or a pharmaceutically acceptable salt thereof.

Claim 62(previously presented): The method of any one of claims 19 or 24 wherein the compound is a compound of formula



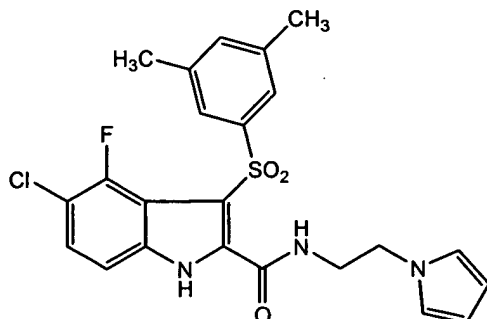
or a pharmaceutically acceptable salt thereof.

Claim 63 (previously presented): The method of any one of claims 19 or 24 wherein the compound is a compound of formula



or a pharmaceutically acceptable salt thereof.

Claim 64(previously presented): The method of any one of claims 19 or 24 wherein the compound is a compound of formula



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Amdt. dated February 3, 2006
Reply to Office Action of November 3, 2005

or a pharmaceutically acceptable salt thereof.